Diethylstilbestrol (DES) Update 1982

FROM 1940 TO 1971, several million pregnant women in the United States were given a nonsteroidal synthetic estrogen, diethylstilbestrol (DES), most commonly for the prevention of miscarriage. In 1971 Herbst and associates established the link between the development of clear cell adenocarcinoma of the vagina and cervix and DES exposure in utero. Later that year, the Food and Drug Administration (FDA) declared DES contraindicated for use in the prevention of miscarriage. The likelihood of a clear cell adenocarcinoma developing in the vagina or cervix of a DES-exposed daughter now appears to be about 0.14 to 1.4 per thousand. Other abnormalities that may occur in DES-exposed daughters include: vaginal adenosis (columnar epithelium in the vagina), cervical ectropion or eversion and vaginal and cervical ridges that have been described as "collars," "cockscombs," "hoods" and pseudopolyps. These noncancerous abnormalities are present in the vagina of about a third and in the cervix of nearly all DES-exposed daughters.

We are becoming increasingly aware of DES-related problems in pregnancy as DES-exposed daughters reach reproductive age. These women are at significantly increased risk for stillbirth, neonatal death, miscarriage, and ectopic pregnancy as well as for preterm delivery. DES exposure has been implicated in incompetent cervices and abnormally shaped uterine cavities. Pregnant DES-exposed daughters should therefore be treated as high risk patients.

Identification of the DES-exposed daughter is difficult because many are unaware of their exposure. Questions aimed at eliciting a history of DES exposure should be routinely asked of all women born between 1940 and 1971. Evaluation and management for DES exposure should be made according to recommended guidelines: when a female patient with a known history of DES exposure in utero reaches menarche or is 14 years or older, whichever comes first; when any of the abnormalities described above are detected on physical examination, or when a premenarchal girl presents with unexplained vaginal bleeding, spotting or discharge.

Data on DES-exposed sons are less extensive; however, they do show a significantly higher than expected incidence of undescended testes, epididymal cysts, hypoplastic testes, microphallus, lower sperm counts and abnormal sperm. DES-exposed sons should be informed of their exposure when known, and care should be tailored to specific problems.

Because of the anxiety, frustration, guilt and anger experienced by many DES-exposed persons and their families, health care providers must be open, candid and supportive with these patients. For DES-exposed daughters, especially, clear and complete explanations of the DES examination, detected abnormalities, treatment and expectations may be supplemented by referrals to local DES peer-counseling groups.

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Menstrual Extraction

SINCE THE HISTORIC Supreme Court decision in Roe vs Wade in 1973 that removed nearly all legal strictures against abortion, the demand for legal abortion has steadily increased in the United States. In response to this demand, newer and safer procedures for pregnancy termination have evolved. One of the most important of these is menstrual extraction.

Menstrual extraction is an office procedure that can be readily mastered by physicians providing family planning services to their patients. The procedure is somewhat analogous to the insertion of an intrauterine device in that, without prior cervical dilatation, a soft plastic cannula is inserted in the uterine cavity. Instead of using the cannula as a conduit for placing an intrauterine device in the uterus, however, a 50-ml Karman syringe is connected to the cannula and the products of conception are aspirated out. Following the procedure, Rh_0 (D) immune globulin (human) micro-dose (MICRhoGAM) is administered to Rh-negative women to prevent sensitization.

Candidates for menstrual extraction are women with pregnancies less than seven weeks in size and duration from their last menstrual period. The presence of acute pelvic inflammatory disease is the only major contraindication.

Successful termination of pregnancy is possible in up to 99 percent of cases. Major advantages

of menstrual extraction are its lack of serious complications and the fact that it obviates the need for the more expensive and risky dilatation and suction curettage. Immediate side effects occur in approximately 6 percent of patients, and these include syncope, nausea and pain. Late complications include endometritis in 0.8 percent to 2 percent, excessive bleeding in 0.6 percent to 3 percent, cervical or uterine perforation in less than 0.01 percent and incomplete evacuation in 0.6 percent to 2.5 percent.

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Tetracycline for the Treatment of Gonococcal and Nongonococcal Urethritis

IN 1979 THE Centers for Disease Control (CDC) changed the previous recommendation of procaine penicillin as the drug of choice in uncomplicated gonorrhea to include three drug regimens of choice:

- Aqueous procaine penicillin G (APPG): 4.8 million units injected intramuscularly at two sites, with 1 gram of probenecid by mouth;

or

- Tetracycline hydrochloride: 0.5 grams by mouth four times a day for five days (total dosage 10.0 grams). Other tetracyclines are not more effective than tetracycline hydrochloride. All tetracyclines are ineffective as a single-dose therapy;

or

- Ampicillin or amoxicillin: ampicillin, 3.5 grams, or amoxicillin, 3.0 grams, either with 1 gram of probenecid by mouth.

Gonorrhea continues to be a major public health problem, with nongonococcal urethritis (NGU) becoming even more prevalent. Of great concern is the fact that postgonococcal urethritis (PGU) occurs in 30 percent to 60 percent of heterosexual men who are treated with drugs other than tetracycline for their gonorrhea.

Both NGU and PGU are caused by *Chlamydia* or other similar tetracycline-sensitive agents; PGU is simply the infection unmasked after concomitant gonorrhea-chlamydial exposure is treated with a drug that is not effective against NGU. NGU requires at least seven days of tetracycline therapy —0.5 grams by mouth four times a day—and many practitioners therefore treat gonorrhea with tetracycline for this length of time to provide adequate therapy for possible concomitant NGU.

There are other advantages to using tetracycline: (1) like penicillin, it is likely to be effective against incubating syphilis; (2) it may reduce the recent increasing incidence of penicillinase-producing *Neisseria gonorrhoeae* (PPNG) strains; (3) it was effective against a recently reported case of a gonorrhea strain resistant to both penicillin and spectinomycin; (4) cost, and (5) low incidence of adverse reactions.

Tetracycline should not be used in children, pregnant women or in patients where compliance is an important consideration. Although NGU is not reportable in many states, it should be remembered that, like gonorrhea, the asymptomatic partner should be treated. Tetracycline is an excellent choice for this indication as well.

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Sports Medicine—Objectives of the Preparticipation Evaluation

INCREASING NUMBERS of family physicians are being called on to assess the fitness of potential young athletes to participate in competitive sports. Whereas in the past this assessment was a cursory examination that most practitioners conducted with little thought or preparation, recent evidence suggests that a thorough and rigorous evaluation will benefit both the physician and athlete if the following objectives are accomplished: (1) determination of the general state of health and treatment of remedial conditions; (2) determination of the level of physical fitness and recommendations for same; (3) assessment of size and maturation to aid in determining the safety of participating with peers; (4) evaluation of preexisting injuries and recommendations for rehabilitation where appropriate; (5) restriction of activity or disqualification from specific sports when contraindicated by physical limitations or disease that would preclude safe participation, and (6) recom-